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Initial I.O.O.L. concerns:

In a previous item I attempted to describe the participation of the American Optometric Association in the establishment of the International Optical League as represented by delegate Frederic A. Woll at the founding meeting in Cologne, Germany, on July 3-4, 1928. Now I should like to identify the primary concerns and topics dealt with at that same meeting as reflected in the German minutes published in the November 1928 issue of Deutsche Optische Wochenschrift, vol. 14, no. 46, pp. 634-641 under the title of "Die Gründungsversammlung der Internationalen Optiker-Liga."

The eight items on the agenda included conventional categories of business, namely, (1) opening remarks and greetings, (2) election of chair (Brennecke of Berlin), (3) the report of organizer W. Lohmann, (4) discussion of the basis of the I.O.L., (5) by-laws, headquarters, and election of officers, (6) time and place of the next meeting, (7) commentaries on announced topics, and (8) closing remarks by the presidents of the I.O.L. and the host organization (the national alliance of German optical societies). The items of special historical interest here, however, are numbers 4 and 7, for they reveal what professional concerns were uppermost in the minds of the 26 participants representing their various constituents from the Continent, Great Britain, and the United States.

These concerns were clearly divulged in the individual reports of conditions, patterns, and needs in each reporting delegate's home country. Some were a bit boastful, some slightly apologetic, and others hopeful. Three issues predominated. One was the improvement of professional training. A second was the exclusive delivery of eyewear by opticians. The third was legislation relating to the practice of refraction by opticians.

From these revelations emerged the eventual statement of purposes in the initial by-laws of the I.O.L. as adopted at the next meeting two years later and published on pages 728-730 of the 1930 edition of the same journal, vol. 16, no. 47, as follows:

1. The advancement of the status of the optician.
2. The gathering and dissemination of information about the practice of the optical profession with reference to the delivery of eyewear in different countries and especially regarding
 - (a) the relationship between opticians and ophthalmologists.

- (b) optical organizations.
 - (c) optical education.
 - (d) national and regional controls.
 - (e) the relationship of opticians with health insurance agencies.
3. The establishment of an international advisory board for national optical organizations.
 4. To provide assistance to national optical organizations in the protection of their members' interests.
 5. The improvement of educational methods for opticians.
 6. The holding of international optical conferences.
 7. The furthering of research in the area of optics.
 8. The interchange of methods for informing the public about the preservation and improvement of vision.

While these concerns and objectives may seem a bit mundane to today's participant in organized optometric activities, they nevertheless take on a striking significance with the realization that not one of them was implemented or pursued internationally anywhere in the world prior to the formation of the I.O.L.

A point that one has to keep in mind when reading the minutes and by-laws is the fact that the prevailing term of identification of the refracting nonmedical optical practitioner in Europe was simply optician, Optiker, or its etymological equivalent in any other language. The terms "optometrist" and "Augenoptiker" were briefly mentioned and somewhat summarily recognized as regionally and recently introduced appellations with restrictive connotations to distinguish the eyewear-related practitioner from the emerging personnel involved with technical optics quite unrelated to visually corrective measures. In this connection there was considerable discussion to remove any doubts that, even with the broad generic meaning of the term optical or optician, it was to be clearly understood that membership in the I.O.L. (not yet the present I.O.O.L.) was for member organizations whose own members included refraction in their services.

Perhaps the most striking overall feature of the minutes is the commonality of concerns among the participants from many culturally different countries, speaking different languages, hitherto unacquainted with each other, and less than 10 years beyond the hostilities of World War I. And today we can also see that the commonality pervades another era more than two generations later.

H.W H.

Trial sights, trial lenses?

OHS member Eric Muth submitted to us a photocopy of page 66 of the 1873 catalog of "James W. Queen & Co., Philadelphia and New York" on which was listed TRIAL SIGHTS as stock item #1939. Its descriptive paragraph reads as follows: "Nachett's Complete Series of Trial Sights, consisting of 32 pairs spherical convex and 32

pairs spherical concave lenses, from 2 to 72 inches focus; 19 pairs cylindrical convex and 19 pairs cylindrical concave lenses, from 6 to 60 inches focus; 9 prisms, angles from 2° to 10°, all mounted in handsome metallic frames; 4 colored glasses, 4 metal disks, 1 stenopaic instrument, and a graduated adjustable frame for holding the various lenses; the whole packed in a highly-polished mahogany, or morocco covered case."

What is puzzling is that the weakest sphere in the case was about 1.8 diopters and the weakest cylinder was about 1.5 diopters. Can one of our collectors offer some insight?

Detective use of glasses:

Richard Austin Freeman, 1862-1943, a fellow countryman and contemporary of Arthur Conan Doyle, 1859-1930, was to many "the dean of scientific detective story writers" and especially popular among readers who appreciated the scientific touch of his favorite character Dr. Thorndyke. In the editorial commentary on page 339 of the December, 1933, issue of the Dioptric Review under the rubric of "Split Bifocals" appear the following paragraphs regarding one of Freeman's novels of the same year:

It is always amusing when reading a novel to come across allusions to spectacles and to note the mistakes that authors almost invariably make.

Recently I came across this interesting passage in "Dr. Thorndyke Intervenes," by Austin Freeman:--

"... and he wore spectacles."

"What kind of spectacles?" Thorndyke asked.

"I dunno," replied Bunter. "Spectacles is spectacles. I ain't a optician."

"Some spectacles are large," said Thorndyke, "and some are small. Some are round and some are oval, and some have a line across as if they had been cracked. Would his fit any of these descriptions?"

"Why, yes, now you come to mention it. They was big, round spectacles with a sort of crack across them. But it couldn't have been a crack because it was the same in both eyes."

I noticed that Miller had cast a quick look at Thorndyke, and was now eagerly writing down the description. Evidently he "smelt a fox," and so did I. For, though Thorndyke had not really put a "leading question," he had mentioned a very uncommon kind of spectacles--the old-fashioned type of bifocal, which is hardly ever made now, having been superseded by the cemented or ground lunette. I had no doubt, nor, I think, had Miller, that he was describing a particular pair of spectacles; and this suspicion was strengthened by his next questions.

The author in this case is nearer the mark than most with the exception of one word, "lunette," which he uses. In modern times it would scarcely be considered as applying to spectacles except when writing in French.

Part 1-a of Hirschberg's Vol. 11:

This is a 1992 translation by F.C. Blodi of another segment of Julius Hirschberg's eleven volume History of Ophthalmology, this one bearing the intriguing subtitle of "The Reform of Ophthalmology." It is a very weighty book of well over 300 hard glossy pages in 62 sections numbered from 1001 to 1062 with a puzzling sequence of titles, a few random examples being "Anatomy of the visual system," "Seebeck and the history of color blindness," "Resistance against the ophthalmoscope," "The history of myopia," and "Graefe's private life."

An "Index of Personal Names" lists more than 800 persons ranging alphabetically from Abarbanell to Zwingli. (Abarbanell was a general physician who reported in 1852 a feeble attempt to use the ophthalmoscope, "Augenspiegel" in German. Three hundred years earlier Zwingli had used the word Augenspiegel to mean spectacles.) It is interesting, and perhaps significant, to note that in the index of names Helmholtz is keyed to 82 pages, Graefe to 78, and Donders to 49, the three persons most frequently cited.

The so-called period of reform is identified with the second half of the 19th century. This corresponds with the era during which eye physicians invaded optometry's (opticianry's) prior private domain of more than a half-millennium, though Hirschberg does not comment on this phase. It was an extremely well founded reform associated primarily with physiologist Helmholtz's creative teachings in visual science and his invention and promotion of the ophthalmoscope; physiologist Donders' researches on accommodation and refraction; and the contemporary contributions of numerous others of scientific bent from a variety of disciplines attracted to the study of how we see. It seems reasonable to believe that the simultaneous explosive emergence of the pertinent literature and of organized societies and meetings must have been enhanced by the improved communications and transportation facilities such as afforded by the establishment and rapid expansion of the steam-powered railway system of that era.

Unlike Hirschberg's earlier volumes, this one deals with a period that comes within his own living memory or within that of persons with whom he was acquainted. It is also evident that Hirschberg was an avid reader of the literature and made copious notes on hundreds, perhaps thousands, of passages, some direct quotes and many personal comments and interpretations, some technical and others of purely human interest. For example, he points out in one paragraph that Purkinje "studied the pressure phosphenes of the eye precisely for the first time," and in another, "The faculty initially rejected Purkinje because he had been born in Bohemia."

The text, then, instead of being a flowing account of a trend or development, is a reproduction of these notes and citations quite loosely classified under 62 headings. Indeed, it includes a

wealth of otherwise quite inaccessible information but in hodgepodge form. Perhaps unwittingly, Hirschberg in no way realizes that in this book he has covered much of optometry's historical involvement in its own emergence from the long influential guild pattern.

Contributed by Ralph E. Wick:

CARVED IN GRANITE

Why would a famous sculptor spend many hours of extra effort to carve glasses on one of his famous works?

My first encounter with Gutzon Borglum the sculptor occurred on a trout stream in the Black Hills of South Dakota. Borglum was the carver of the likenesses of Washington, Jefferson, Lincoln, and Theodore Roosevelt at Mount Rushmore, South Dakota. The busts are carved in heroic proportion out of the uplifted eroded granite of the earth's crust. Viewing these figures framed by the pines along the winding road one is impressed immediately by the realistic reproductions of these familiar figures. Approaching from another direction three tunnels are so located as to frame the faces over a mile away. By the time one reaches the Visitors Center of the national Monument one can anticipate a formal presentation of the history of these statesmen and why they were chosen. It is an emotional moment that every American should experience. It serves to remind us that as a nation we had great leaders during our developmental years; and that in spite of our present day politicians our democracy continues to exist because of the contributions of these great leaders.

This meeting with the famous sculptor came when a friend of mine drove up with Gutzon Borglum. He had seen that I was landing a large rainbow trout. I tried to wash the fish odor from my hands before we exchanged greetings. However, Borglum explained that this did not bother him. Dry-fly fishing was one of his hobbies when he was not "on the mountain" chiseling and blasting rock.

Borglum's personality was a bit overpowering; though, I did have the foresight to congratulate him on his work, especially the pince-nez glasses on Teddy Roosevelt. He responded that carving the glasses and giving a realism to the eyes were two of the hardest parts of his work. I said, "You know that Roosevelt was extremely myopic and completely dependent on his glasses." He acknowledged that he learned of this during the two years he spent researching a location for the monument and the lives of these presidents before he started any carving. Like a true artist he wanted to express the inner personality of the men being immortalized in stone.

Young Teddy was a sickly child. He had asthmatic attacks and a form of nervous diarrhea which the family called "cholera morbus." His father became concerned about the development of his

son. He told him that he had the mind but not the body; that if he wanted to develop his mind further he could not do it without the body. This greatly impressed young Teddy, as he lived in a world of books often reading one or two a day. His father, whom he worshipped, set up a weight and exercise room--the young boy still remained awkward for any activities requiring distance vision.

Bird hunting was a popular sport among the family and their friends. Teddy first began to question his own vision at about twelve years of age. He was puzzled by the fact the he could not hit anything with his gun. It bothered him even more that his friends, using his gun, seemed to be able to hit the invisible; when they shot into the sky, birds mysteriously dropped out of the blue.

In his autobiography he mentioned that his friends read an advertisement on a large billboard. He was unable to see any of the letters on the sign. He mentioned this to his father and soon obtained his first pair of spectacles. As he put it, "They literally opened an entirely new world to me. I had no idea how beautiful the world was until I got those spectacles while much of my clumsiness and awkwardness was doubtlessly due to general characteristics. A good deal of it was due to the fact I could not see and yet was wholly ignorant that I was not seeing."

One of the most prolific biographers of Roosevelt, Edmund Morris, writing in his book, The Rise of Theodore Roosevelt, put it in beautiful prose, "It is impossible to over-estimate the importance of this event on the boy's maturing sensibilities. Through the miraculous little windows that now gripped his nose, the world leaped into pristine focus, disclosing an infinity of detail, of color, of nuance, and of movement, just when the screen of his mind was at its most receptive. One of the best features of his adult descriptive writing--an unsurpassed joy in things seen dates back to this moment; while--his abnormal sensitivity to sound--is surely the legacy of the myopic years that came before."

Reviewing many photographs of Roosevelt one finds that in his maturity he was almost never seen without his regular spectacles or his pince-nez. In the green years at Harvard he obviously removed his spectacles for group photographs. Vanity was as great in the 1870's as for the modern teenager--except that one cannot help wonder if he was able to see the photographer!

Early in my optometric career I remember hearing that his myopia was about -10.00D. I have never seen that verified, but in some museum there must be a pair of Roosevelt's spectacles that one could neutralize. Perhaps there is even a written copy of his refraction. Are any of our historians aware of accurate information about the power of these career shapers?

So, the importance of early optometric service has been recognized by one of the greatest sculptors of modern times.

And the glint in the eyes of these great leaders--how is this done? We have all seen sculptures whose blank staring eyes completely ruin the expression of the entire face; the corneal reflex is missing. Borglum sensed this and worked years to achieve it in granite. Here is how: The eye socket is about eleven feet wide and three feet high. It is cut back into the stone about three feet. This would leave a black pupil with no reflex. He solved this by leaving a one foot square piece of granite extending twenty-two inches out from the back of the eye socket. The reflection from the foot square smooth granite provides a reflex near the middle of the dark hole. This gives a reflection like the pupillary reflex in the human eye.

It would be interesting to measure the inter-pupillary distance (P.D.) on the face. Borglum also considered the differences in this among people. The appearance of a narrow or wide P.D. helps form the expression of a face. This is influenced not only by the actual P.D. but by the angle from which the eyes are viewed and the effect of shadows at different times of the day.

So often we take for granted what we do in day-by-day refractions not realizing that an entire life can be changed by this procedure. Perhaps it takes an inspired sculptor researching the reasons for greatness in a person to carve in granite one of the importance contributions to the direction of a human life.

The glass illusion:

Upon receiving Dr. Wick's manuscript I asked him if the appearance of actual glass lenses was attributable to the way the granite was differentially polished. The answer was no, that he merely emphasized the border of each pince-nez lens by means of a slight outlining ridge, which then induces the illusion of glass lenses.

H.W H.

From the O.A.I.C.C.:

On page 1 of the October 1992 issue of the Ophthalmic Antiques International Collectors Club Newsletter, No. 41, editor MacGregor describes his attendance of the big July 2 sale of Scientific Instruments at Christie's in London which included 30 lots of spectacles and other items of ophthalmic interest. After describing several of the items which sold at three and four digit prices he advises, "If you have any rare spectacles to sell, now is the time!"

An article on pages 3-8 is devoted totally to the topic of "Real Tortoiseshell," with contributions from R.J.S. MacGregor, Hugh Orr, Derek C. Davidson, and Stuart Eadon-Allen. Dealt with in personally authoritative detail are the origin, source, and history of the Hawksbill turtles, their capture, methods of killing them,

the skillful processing of the shells for use in spectacle frames and trinkets, their commercialization, and their present classification as an endangered species with protective laws. This may well be the most informative document available on this phase of ophthalmic history.

Optometric fraternities:

According to an Epsilon Psi Epsilon Pledge Manual, undated but known to have been published in 1949, circa Oct. 1, the fraternity's first chapter, Alpha, was founded May 3, 1911, at Columbia University and folded in 1924. However, its second, Beta, chapter was established at the Ohio State University on March 27, 1920, and continues to be active. The third, Gamma, chapter was installed at the Rochester School of Optometry in Rochester, New York, in early 1921 but was terminated in 1933 with the closing of the school.

A table in the manual shows Epsilon Psi Epsilon to have been the earliest optometric fraternity, followed in 1917 by Omega Delta, in 1919 by Gamma Omega Phi and Omega Epsilon Phi, and in 1920 by Phi Theta Upsilon.

In 1931 the Beta chapter of Epsilon Psi Epsilon at the Ohio State University undertook the publication of an occasional two-paged newsletter, later a multipaged printed magazine, which was eventually named the O-Eye-O and distributed to members and alumni of all three chapters and to others with related interests.

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